REMARKS

Claims 1, 6, 9, 10 and 16 are amended herein. Claims 1-3, 6-10 and 16-18 are pending. Applicants respectfully note that the instant Office Action incorrectly indicates that only Claims 1-3 and 6-10 are pending. New Claims 16-18 were included with the Request for Continued Examination (RCE) mailed on March 18, 2003. Applicants also respectfully note that that the status of Claims 16-18 is not addressed in the instant Office Action.

Drawings

The Examiner is requiring corrected drawings, incorporating the drawing amendments included with the RCE. Corrected drawings are included with the instant response.

102 Rejections

Claims 1-3 and 6-10 are rejected under 35 U.S.C § 102(e) as being anticipated by Fichou et al. ("Fichou;" US 5,602,830). The Applicants have reviewed this reference and respectfully assert that the present invention as recited in Claims 1-3 and 6-10 is not anticipated nor rendered obvious by Fichou.

Independent Claim 1 recites that an embodiment of the present invention comprises "a mechanism for ... establishing a second order for transmitting said data packets that is different from said first order, said second order based on respective destination addresses of said data packets" (emphasis added), wherein a destination address represents an ultimate destination of a data packet. Independent Claim 6 recites that an embodiment of the present invention is directed to a method "for establishing a second order for transmitting said data

packets that is different from said first order, said second order based on respective destination addresses of said data packets" (emphasis added), wherein a destination address represents an ultimate destination of a data packet. Claims 2-3 are dependent on Claim 1, and Claims 7-10 are dependent on Claim 6.

Applicants respectfully submit that Fichou does not show or suggest the embodiments of the present invention recited in independent Claims 1 and 6. Applicants understand Fichou to describe the placement of cells into different queues according to the cells' Quality of Service priorities. The placement of cells in an output stream appears to be time-based only, with an attempt made to minimize the "cell delay variation." Applicants respectfully submit that there is no showing or suggesting in Fichou of a mechanism or a method that determines an order for transmitting data packets according to the data packets' respective destination addresses.

Therefore, Applicants respectfully submit that Fichou does not show or suggest the present invention as recited in independent Claims 1 and 6, and that the Examiner's basis for rejecting Claims 1 and 6 under 35 U.S.C. § 102(e) is traversed. Applicants also respectfully submit that the Examiner's basis for rejecting Claims 2-3 (dependent on Claim 1) and Claims 7-10 (dependent on Claim 6) under 35 U.S.C. § 102(e) is traversed, as Claims 2-3 and 7-10 are dependent on allowable base claims and recite additional limitations.

Applicants respectfully note that independent Claim 16 recites that an embodiment of the present invention comprises a "driver for establishing a second order for transmitting said data packets that is different from said first order,

said second order based on respective destination addresses of said data packets" (emphasis added), wherein a destination address represents an ultimate destination of a data packet. Claims 17-18 are dependent on Claim 16 and recite additional limitations. Accordingly, Applicants respectfully submit that Claims 16-18 are not anticipated nor rendered obvious by Fichou.

CONCLUSION

In light of the above remarks, Applicants respectfully request reconsideration of the rejected Claims.

Based on the arguments presented above, Applicants respectfully assert that Claims 1-3 , 6-10, and 16-18 overcome the rejections of record and, therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

WAGNER, MURABITO & HAO

Date: 8/29/03

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please insert the following new paragraph after line 23 on page 4:

-- Fig. 2 is a diagram illustrating a server 500t transmitting to three receivers 500a, 500b and 500c via a network 84 according to one embodiment of the present invention. --

Please amend the paragraph beginning at line 37 on page 4 and ending at line 11 on page 5 as follows:

-- Fig. [2] 3 depicts an example of a packet as it may be transmitted to or from router 64 on LAN segment 73a. The example shown is essentially an Ethernet packet, having an Ethernet header 202 and a 48-bit Ethernet address (such as 00:85:8C:13:AA) 204, and an Ethernet trailer 230. Within the Ethernet packet 200 is contained, or encapsulated, an IP packet, represented by IP header 212, containing a 32 bit IP address 214 (such as 199.22.120.33). Packet 200 contains a data payload 220 which holds the data the user is interested in receiving or holds a control message used for configuring the network. Many other types and configurations of packets are known in the networking art and will be developed in the future. --

IN THE CLAIMS

Please amend the claims as follows:

Please cancel Claims 11-15 without prejudice.

1. (Three Times Amended) A network adaptor driver comprising:

[an] a first interface for receiving data packets in a first order, wherein a first plurality of said data packets have a first destination address corresponding to a first destination and a second plurality of said data packets have a second destination address corresponding to a second destination [said data received for a plurality of destinations, wherein said data for a particular destination is received having a particular relationship among individual data units];

[an] a second interface for transmitting said data packets to said first and second destinations [packets of data over a network]; and

a mechanism for selecting from said data packets according to their respective destination addresses, said mechanism for establishing a second order for transmitting said data packets that is different from said first order, said second order established by first selecting at least one data packet having said first destination address and then selecting at least one data packet having said second destination address such that during said transmitting said data packets are essentially evenly distributed between said first and second destinations [handling units of data received based on a destination address of said packets before transmitting on said network in order to improve overall network operation such that when said data is received at said destination, said individual data units have the same relationship as when received by said interface for receiving data].

2. (Twice Amended) The network adaptor driver according to claim 1 wherein said [handling] selecting is determined solely by [the] said first and second destination addresses [of said packets].

3. (Three Times Amended) The network adaptor driver according to claim 1 wherein said [handling] selecting is determined partly by [the] said first and second destination addresses [of said packets] and partly by when a data packet is received by said first interface [for receiving data so that packets are distributed over all destinations while minimizing the time to transmission from when a packet is received by said interface for receiving data].

6. (Twice Amended) A method for maximizing network parallelism comprising:

receiving data packets in a first [FIFO] order, wherein a first plurality of said data packets have a first destination address corresponding to a first destination and a second plurality of said data packets have a second destination address corresponding to a second destination;

prior to transmitting said data packets, [reordering] establishing a second order for transmitting said data packets [of data] that is different from said first order by first selecting at least one data packet having said first destination address and then selecting at least one data packet having said second destination address such that during said transmitting said data packets are essentially evenly distributed between said first and second destinations [based on a destination address of said packets, so that said packets are spread over a number of different network destination paths]; and

transmitting said data packets.

7. (Twice Amended) The method according to claim 6 wherein said [reordering] establishing is [determined] solely [by the] according to said first and second destination addresses [of said packets].

8. (Three Times Amended) The method according to claim 6 wherein said [reordering] establishing is determined partly by [the] said first and second destination addresses [of said packets] and partly by when a data packet is received by said first interface [for receiving data so that packets are distributed over all destinations while minimizing the time to transmission from when a packet is received by said interface for receiving data].

9. (Twice Amended) The network adaptor driver according to claim 6 wherein said [reordering] establishing is determined by a preset, nonadjustable scheme.

10. (Three Times Amended) The network adaptor driver according to claim 6 wherein said [reordering] establishing is determined by a programmable scheme which takes into account differences in speed and performance paths to particular destinations to maximize network parallelism.

Please add the following new claims:

16. (New) A device comprising:

a first interface for receiving data packets in a first order, wherein a first plurality of said data packets have a first destination address corresponding to a first destination and a second plurality of said data packets have a second destination address corresponding to a second destination; and

a second interface for transmitting said data packets to said first and second destinations;

wherein said device executes a driver that selects from said data packets according to their respective destination addresses, said driver for establishing a second order for transmitting said data packets that is different from said first order, said second order established by first selecting at least one data packet having said first destination address and then selecting at least one data packet having said second destination address such that during said transmitting said data packets are essentially evenly distributed between said first and second destinations.

17. (New) The device according to claim 16 wherein said driver selects from said data packets solely by said first and second destination addresses.

18. (New) The device according to claim 16 wherein said driver selects from said data packets partly by said first and second destination addresses and partly by when a data packet is received by said first interface.

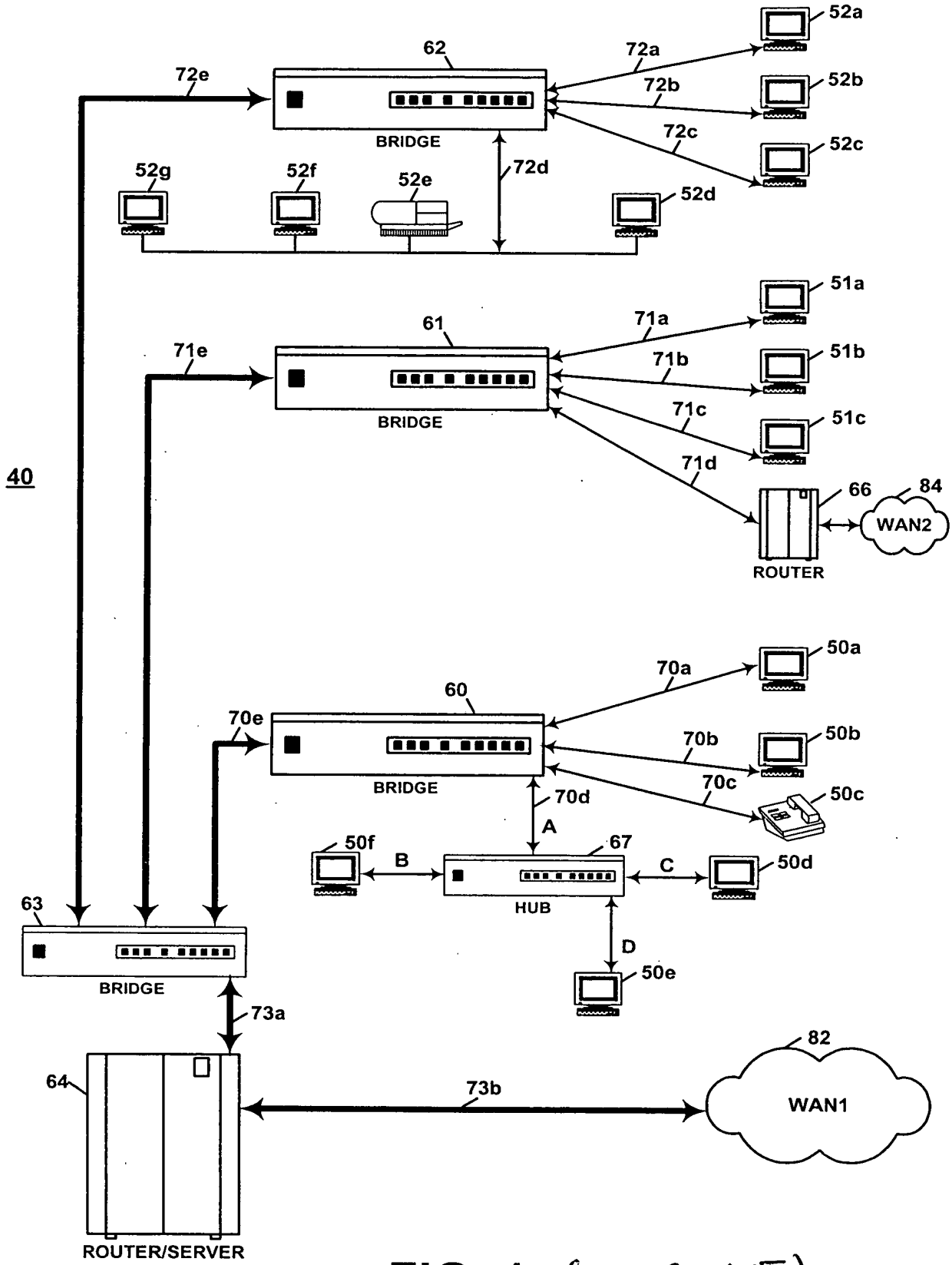

FIG. 1 (PRIOR ART)

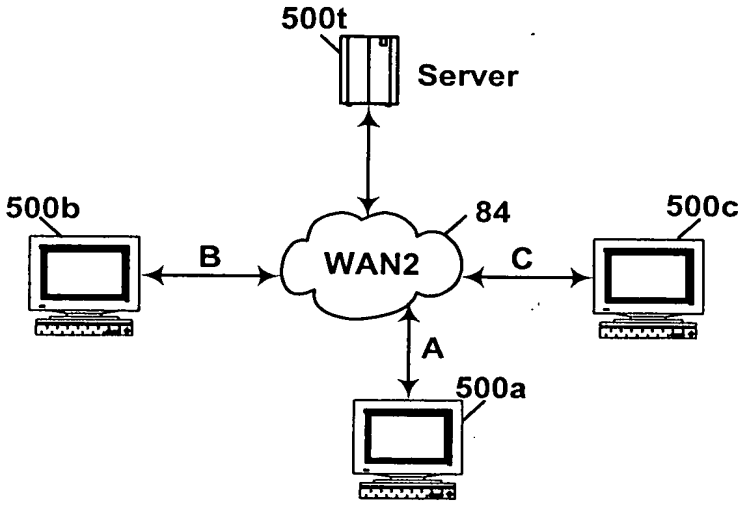

FIG. 2 (PRIOR ART)

200

ETHERNET HEADER 202		IP HEADER 212		DATA 220	ETHERNET TRAILER (24 BITS) 230
ETHERNET ADDR(48) 204			IP ADDR(32) 214		

FIG. 3 (Prior Art)

	LAYER NAME(NUMBER)	DEVICES	DATA	PROTOCOLS
HIGH	HIGHER LAYER PROTOCOLS			
	APPLICATION LAYER (5)		FILES	FTP, HTTP
	TRANSPORT LAYER (4)	ROUTERS	ROUTING PACKETS	TCP, UDP
	ROUTING LAYER (3)	ROUTERS	ROUTINGS PACKETS	IP
	DATA LINK LAYER (2)	BRIDGES	PACKETS	ETHERNET
LOW	PHYSICAL LAYER (0,1)	REPEATERS	BITS	ETHERNET

FIG. 4 (PRIOR ART)

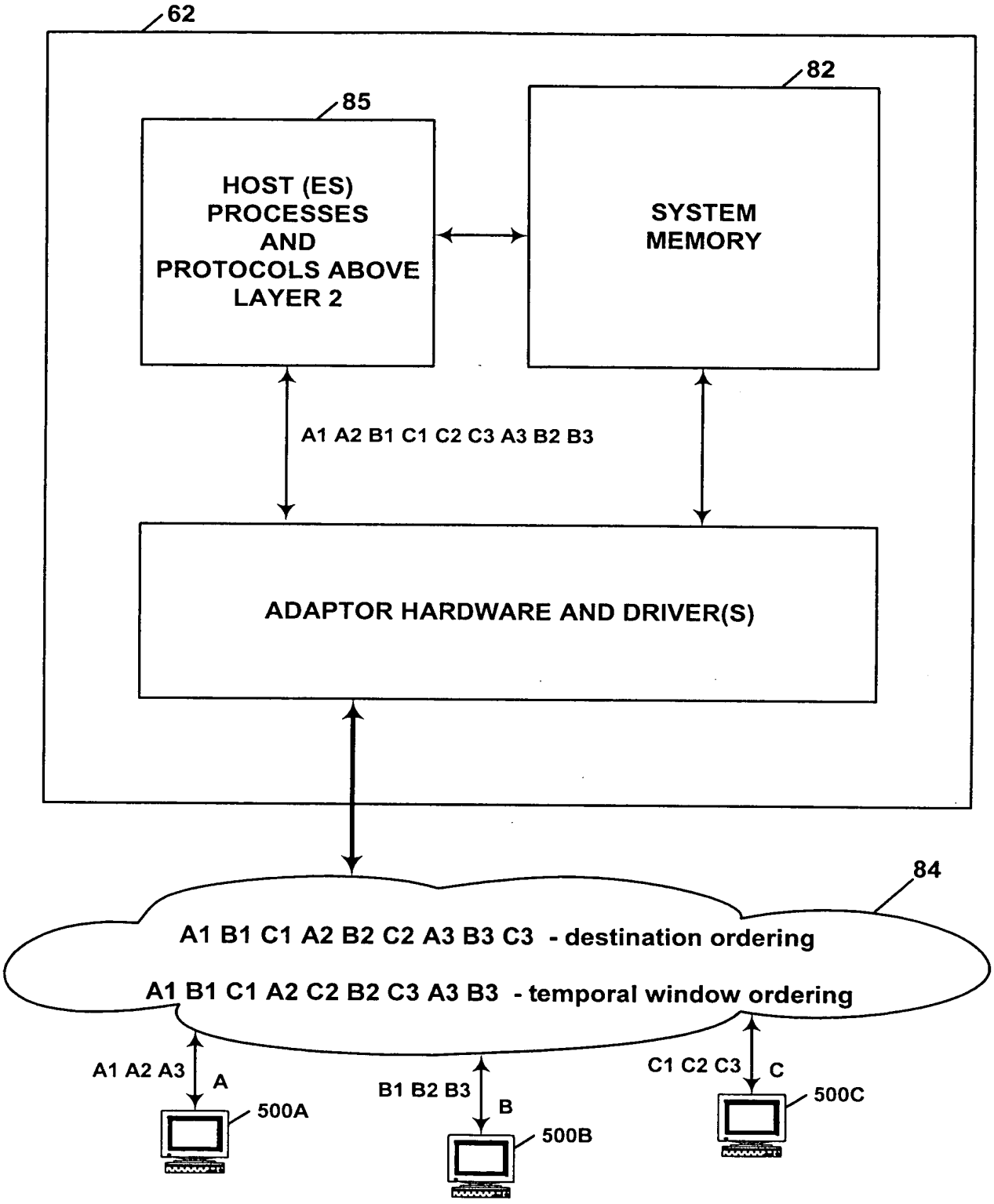

FIG. 5